LAZAREV, V.L.

KHIL'KEVICH, F.A., inzhener; BAZILEVICH, S.V., inzhener; LAZAREV, V.L., inzhener.

Improving the wear of blast furnace refractory linings. Stal' 16 no.12:1067-1072 D '56. (MLRA 10:9)

1. Novo-Tagil'skiy metallurgicheskiy zavod.
(Blast furnaces) (Refractory materials)

ACCESSION NR: AP4036513 S/0103/64/025/005/0696/0701

AUTHOR: Bobrovnik, G. A. (Moscow); Lazarev, V. M. (Moscow)

TITLE: Synthesizing optimum measuring systems containing digital computers

SOURCE: Avtomatika i telemekhanika, v. 25, no. 5, 1964, 696-701

TOPIC TAGS: automatic control, measuring system, digital measuring system, optimum digital measuring system

ABSTRACT: Stationary measuring servo systems, used for determining coordinates and parameters of moving objects, generate an estimator that approaches the input function. To improve the approaching process, the use of a digital computer in the predictive measuring system is suggested. Synthesizing mean-square-error-optimized predictive measuring systems containing a digital computer is considered. It is found that the inclusion of digital computers may substantially improve the smoothness of the measuring system. As compared to

Card 1/2

ACCESSION NR: AP4036513

the W. Karush system (Trans. IAE, v. EC-4, no. 1, 1955) or to nonpredictive systems, the digital-computer-equipped system's advantage is higher for greater number of input-signal derivatives used in its synthesis. Orig. art. has: 3 figures and 35 formulas.

ASSOCIATION: none

SUBMITTED: 22Feb63 DATE ACQ: 03Jun64 ENCL: 00

SUB CODE: DP, IE NO REF SOV: 001 OTHER: 001

Card 2/2

LAZAREV, V.M.; FIGUROVSKIY, D.P.

Averaging the output data of measuring systems. Izm. tekh. no.2:1-5 F '65. (MIRA 18:6)

ZHDANOV, M.A., doktor geologo-mineralogicheskikh nauk, professor; LAZAREV, V.N. inzhener.

Generalization of material balance equations for calculating petroleum reserves. Trudy MNI no.11:3-11 '51. (MLRA 10:3)
(Petroleum engineering)

L 53792-65 EWT(d)/EWA(d)/EWP(v)/EWP(k)/EWP(h)/EWP(l) Pf-4
ACCESSION NR: AP5009872 UR/0115/65/000/002/0001/0005
681.2.088.001.24

AUTHOR: Lazarev, V. M.; Figurovskiy, D. P. 19 B

TITLE: Averaging the output of measuring systems

SOURCE: Izmeritel'naya tekhnika, no. 2, 1965, 1-5

TOPIC TAGS: metrology, measuring system, measurement accuracy 14

ABSTRACT: The effect of correlations and the causes that limit the accuracy achievable by averaging are considered. The process of error variation in a system consisting of three parts — receiving, measuring, and averaging — are examined. Conditions of necessary information redundancy and of the possible occurrence of averaging errors due to insufficiency of information are explored. The investigation shows that a higher accuracy of measurement by means of the averaging method can be achieved only within certain limits. In estimating the degree of averaging (or in selecting the rate of introduction of information into the

Card 1/2

L 53792-65
ACCESSION NR: AP5009872

averaging system), the nature of the measuring system and the numerical values of its parameters should be taken into account. Orig. art. has: 3 figures, 30 formulas, and 2 tables.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: IE

NO REF SOV: 002 OTHER: 000

Card 2/2

LAZAREV, V.N. (Chelyabinsk): FILIPENKO, V.I. (Rostov-na-Donu); LUKASHEV, A.M. (Melitopol').

Improve the system of track work operations. Put' i put.khoz. no.12:4-5 D '57. (MIRA 10:12)

1. Zamestitel' nachal'nika sluzhby puti (for Lazarev). 2. Starshiy inzhener transportnogo otdela Rostovskogo Sovnarkhoza (for Filipenko). 3. Starshiy dorozhnyy master (for Lukashiv).
(Railroads--Maintenance and repair)

KOZLYAKOV, V.V.; LAZAREV, V.N.; Prinimali uchastiye: VYATLEVA, N.G., inzh.; GARBUZ, V.S., inzh.

Experimental investigation of the plastic-elastic bending of models of inner bottoms in dry cargo ships. Trudy LKI no.38: 75-87 '62. (MIRA 16:7)

1. Kafedra stroitel'noy mekhaniki korablya Leningradskogo korablestroitel'nogo instituta (for Kozlyakov). 2. Kafedra konstruktsii sudov Leningradskogo korablestroitel'nogo instituta (for Lazarev).

(Hulls (Naval architecture))
(Deformations (Mechanics))

LAZAREV, V.N. (Ufa); DEVLIKAMOV, V.V. (Ufa); YAKUBOV, A.A. (Baku); KHARITONOV, M.F. (Baku)

Concerning the book by M.A. Zhdanov "Petroleum geology."
Izv. vys. ucheb. zav.; neft' i gaz 6 no.8:110-112 '63.
(MIRA 17:6)

KLYUCHAREV, V.S.; SHEVKUNOV, Ye.N.; LAZAREV, V.N.

Geologic structure and oil potential of Tournai sediments in the Mancharovskoye field. Izv. vys. ucheb. zav.; neft' i gaz 6 no.4:7-10 '63. (MIRA 16:7)

1. Ufimskiy neftyanoy institut.
(Bashkiria--Petroleum geology)

KLYUCHAREV, V.S.; SHEVKUNOV, Ye.N.; LAZAREV, V.N.

Study of carbonate rocks from geophysical data. Izv. vys. ucheb. zav.; neft' i gaz 3 no.12:15-19 '60. (MIRA 14:10)

1. Ufimskiy neftyanoy institut.
(Bashkiria--Petroleum geology)
(Carbonate, Rocks)

KLYUCHAREV, V.S.; LAZAREV, V.N.

Method for isolating lithologic bands in sediments of the Upper Carboniferous terrigenous formation. Izv. vys. ucheb. zav.; neft' i gaz 5 no.3:19-22 '62. (MIRA 16:8)

1. Ufimskiy neftyanoy institut.

L 8501-66

ACC NR: AP5028549 SOURCE CODE: UR/0286/65/000/020/0162/0163

37

AUTHORS: Lazarev, V. N.; Minayev, I. I.; Aksenov, V. V.

13

ORG: none

TITLE: A vibration method for determining the surface of a liquid. Class 42, No. 148544

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 20, 1965, 162-163

TOPIC TAGS: vibration effect, vibrator, vibration, liquid level indicator, liquid level instrument

ABSTRACT: This Author Certificate presents a method for locating the level of a liquid. To increase the accuracy of level location, a vibrator is placed in the liquid. A vibration receiver in close proximity to the vibrator is excited only when the space between the vibrator and the receiver is filled with liquid.

SUB CODE: 14/ SUBM DATE: 29Sep61

BVK

Card 1/1

2

LAZAREV, V. N.; RAZUMEYEV, A. N. (Leningrad)

Vliyaniye narkotikov razlichnogo tipa deystviya na bioelektricheskiye reaktsii nekotorykh otdelov mozga

report submitted for the First Moscow Conference on Reticular Formation, Moscow, 22-26 March 1960.

GEL'FAND, F.M.; BORUNOV, V.L.; YEFIMOV, V.V.; LAZAREV, V.P.

In producing straight cuts in Karaganda Basin mines. Nauch. trudy KNIUI no.14:255-267 '64. (MIRA 18:4)

LAZAREV, V.P.; PARTIN, I.A.; MEDNIKOV, Yu.P.

Investigating temperature fields by the volume of melts in foundry furnaces for aluminum alloys. TSvet. met. 36 no.11:74-79 N '63. (MIRA 17:1)

15-1957-10-13971

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 10, p 91 (USSR)

AUTHOR: Lazarev, V. S., Radushev, V. I., Nyrkov, A. A.

TITLE: The Problem of the Mineralogy of the Roof and Floor Rocks of the Coal Layers in the Donbass (Donets Basin) (K voprosu o mineralogicheskom sostave krovli i podoshvy ugol'nykh plastov Donbassa)

PERIODICAL: Vopr. mineralogii osadoch. obrazovaniy. Books 3-4, L'vov, L'vovsk. un-t, 1956, pp 337-344

ABSTRACT: The mineralogy of the roof and floor rocks of a number of Middle Carboniferous coal beds has been studied by X-ray methods, by thermal and chemical analyses, and by means of the microscope. The samples for study were taken from mines in the Ukrainian Donbass and from drill holes in the Rostovskaya oblast'. The chief rock-forming mineral in the argillites next to the coal is hydromica of the illite type. Less abundant minerals are kaolinite, montmorillonite, beidellite,

Card 1/2

15-1957-10-13971

The Problem of the Mineralogy of the Roof and Floor Rocks of the Coal Layers in the Donbass (Donets Basin)

monothermite, pyrophyllite, dispersed quartz, gibbsite, and nontronite. The hydromicas of the illite type consistently show endothermic reactions at 120° to 180° and 540° to 560° on all the thermal curves. Depending on the ratio of RO to R_2O_3, illites may be subdivided into alkaline--$RO:R_2O_3 < 0.15$, normal--$RO:R_2O_3 = 0.15-0.70$, and alkaline earth--$RO:R_2O_3 > 0.70$. It was ascertained that alkaline-earth illite is confined to the roof rocks, alkaline illite to the coal beds. Normal illite is present both in the roof rocks and in the floor rocks. Nontronite, pyrophyllite, and monothermite were discovered only in soil from the coal beds. Non-clay minerals in the argillites are present in insignificant quantities and do not differ in composition from those in other clastic rocks of the Donbass. In order to solve the problem of the facies conditions of accumulation of the roof rocks and floor rocks of the coal beds, it is necessary to make broader studies of the mineral composition of the argillaceous rocks enclosing the coal layers.

Card 2/2

Ye. V. Ostrovskaya

KOBILEV, A.G.; LAZAREV, V.S.

Lithological survey of coal-bearing deposits of the Donets Basin on the Basis of facies-phase analysis. Trudy Lab.geol.ugl. no.5: 182-191 '56. (MLRA 9:8)

1. Novocherkasskiy politekhnicheskiy institut.
(Donets Basin--Coal geology)

SOV-3-58-9-21/36

AUTHOR: Lazarev, V.S., Candidate of Geological-Mineralogical Sciences

TITLE: This Was Done at a Vuz (Eto sdelano v vuze). A Device for Projecting Microsections on the Screen (Ustanovka dlya proyektirovaniya shlifov na ekran)

PERIODICAL: Vestnik vysshey shkoly, 1958, Nr 9, page 66 (USSR)

ABSTRACT: Practice has shown that the crystallo-optical method of studying minerals and rocks (by means of a polarization microscope) entails certain difficulties. The Chair of Mineralogy and Petrography of the Novocherkassk Polytechnical Institute has therefore developed a method by which all the phenomena observed under a microscope both with one nicol and with two crossed nicols are projected on a screen. An ordinary polarization microscope is used, placed so that the tube is in a horizontal position. To increase the light, an ordinary projector is used. The light ray is directed through the polarizer to the section and then through the lens to the screen.

Card 1/2 There is 1 diagram.

This Was Done at a Vuz. A Device for Projecting Microsections on the Screen

ASSOCIATION: Novocherkasskiy politekhnicheskiy institut (Novocherkassk Polytechnical Institute)

LAZAREV, V.S.; KOBILEV, A.G.

Typomorphic rocks in the Donets coal-bearing formation and the characteristics of the stratification of typomorphic varieties in sections. Izv.vys.ucheb.zav.; geol.i razv. 2 no.4:68-73 Ap '59. (MIRA 12:12)

1. Novocherkasskiy politekhnicheskiy institut.
(Donets Basin--Coal geology)

NALIVKIN, V.D.; DEDEYEV, V.A.; IVANTSOVA, V.V.; KATS, Z.Ya.; KRUGLIKOV, N.M.; LAZAREV, V.S.; SVERCHKOV, G.P.; CHERNIKOV, K.A.; SHABLINSKAYA, N.V.; Prinimal uchastiye: ZHABREV, I.P.; ROZANOV, L.N.; SOFRONITSKIY, P.A.; KHAIN, V.Ye.; SIMONENKO, T.N.; SOKOLOV, V.N.; YAKOVLEV, O.N., gidrogeolog

[Comparative analysis of the oil and gas potential and the tectonics of the West Siberian and Turan-Scythian platforms.] Sravnitel'nyi analiz neftegazonosnosti i tektoniki Zapadno-Sibirskoi i Turano-Skifskoi plit. Leningrad; Nedra, 1965. 322 p. (Leningrad. Vsesoiuznyi neftianoi nauchno-issledovatel'skii geologorazvedochnyi institut. Trudy, no.236) (MIRA 18:6)

BABAYEV, M.B.; GASANOV, F.G.; LAZAREV, V.T.; TAIROV, A.A.

Some results of field studies of condensate gas wells drilled in No.7 horizons in the Karadag area. Azerb. neft. khoz. 39 no.6:30-34 Je '60. (MIRA 13:10)
(Karadag region--Condensate oil wells)

BORISOV, V.I.; LEVIT, Z.Yu., inzh.; KALININ, V.Z., inzh.; BROVKIN, M.G., inzh.; AGAL'TSOV, N.V., inzh.; ZHIGACHEVA, T.F., inzh.; LOBANOV, V.S., inzh.; ALIMOV, M.F., inzh.; VIKSMAN, I.M., inzh.; LAZAREV, V.Ya., inzh.; ZALEVSKAYA, L.V., tekhnik; SHCHETVINA, R.F., tekhnik; SOKOLOVSKIY, I.A., red.; SHALAGINOV, A.A., vedushchiy red.

[Special and basic equipment of mechanical assembly shops in instrument plants] Nestandartnoe oborudovanie i orgosnastka mekhanicheskikh sborochnykh tsekhov priborostroitel'nykh zavodov. Moskva, Otdel nauchno-tekhn. informatsii, 1959. 158 p. (MIRA 15:4)

(Instrument industry—Equipment and supplies)

LAZAREV, YA.L., inzh.

Safety engineering in mining watches over the miners' health.
Bezop.truda v prom. 1 no.11:8-10 N '57. (MIRA 10:10)
(Mining engineering--Safety measures)

LAZAREV, Ye.

New chemical laboratory equipment. Okhr.truda i sots. strakh. no.5:70-72 My '59. (MIRA 12:9)
(Chemical laboratories--Equipment and supplies)

BABIN, F., kand.tekhn.nauk; LAZAREV, Ye., kand.tekhn.nauk

Changes in chilled and frozen meat in prolonged storage [with summary in English]. Khol.tekh. 37 no.2:47-49 My-Ap '60. (MIRA 13:10)

1. Leningradskiy tekhnologicheskiy institut kholodil'noy promyshlennosti (for Babin). 2. Leningradskiy institut sovetskoy torgovli im. F.Engel'sa (for Lazarev).
(Meat, Frozen--Storage)

LAZAREV, Ye., khudozhnik-konstruktor

Hydrogenerators of Aswan. Tekh. est. 2 no.7:12-14 Jl '65.
(MIRA 18:8)

1. Spetsial'noye khudozhestvenno-konstruktorskoye byuro Leningradskogo soveta narodnogo khozyaystva.

LAZAREV, Ye.; SAFONOVA, L.; GODOVKINA, E.; VORZHEVA, L.V., prof., nauchnyy rukovoditel'

Effect of microelements on the growth and development of young birds. Uch.zap.Kuib.gos.ped.inst. no.37:27-32 '62.
(MIRA 16:1)

(Trace elements) (Poultry—Feeding and feeds)

PATRIK, I.A., kand. sel'skokhoz. nauk; LAZAREV, Ye.F., starshiy nauchnyy sotrudnik

Animal fats and their use in poultry fattening. Trudy TSNIIPPa 9:60-70 '62. (MIRA 16:6)

(Poultry—Feeding and feeds)

LAZAREV, Ye.N.

Efficient planning and organization of a modern laboratory.
Zav.lab. 28 no.3:381-384 '62. (MIRA 15:4)

1. Leningradskiy filial Akademii stroitel'stva i arkhitektury SSSR.
(Laboratories)

MEL'TEVA, N.N.; LAZAREV, Ye.N.; PAVLOVA, V.F.

Protein substances in cabbage. Report No.1: Amino acid composition of protein substances. Izv.vys.ucheb.zav.; pishch.tekh. no.1: 61-63 '64. (MIRA 17:4)

1. Leningradskiy institut sovetskoy torgovli, kafedra organicheskoy khimii i kafedra prodovol'stvennykh tovarov.

LAZAREV, Ye.N.

BEREZIN, Ye.K., kandidat meditsinskikh nauk; LAZAREV, Ye.N., kandidat biologicheskikh nauk; ROSTAPSHOV, M.F.; BILIBIN, A.F., professor, redaktor.

[Biomycin; experimental study of and clinical use of biomycin] Biomitsin; eksperimental'noe izuchenie i klinicheskoe primenenie biomitsina. Otvetstvennyi red. A.F. Bilibin. Chleny red. komissii: E.K.Berezina, E.N.Lazareva, M.F.Rostapshov. Moskva, Gos. izd-vo meditsinskoi lit-ry, 1954. 82 p. (MLRA 7:8)

1. Chlen-korrespondent Akademii meditsinskikh nauk (for Bilibin) (Antibiotics)

LAZAREV, Ye. N.

LAZAREV, Ye. N. -- "Physicochemical Processes in the Preservation of Refrigerated Meat in Sides and Small Parts." Min Higher Education USSR. Leningrad Technological Inst of the Refrigeration Industry. Leningrad, 1955. (Dissertation for the Degree of Candidate in Technical Sciences)

SOURCE Knizhnaya Letopis', No 6 1956

DUBROVA, G.; LAZAREV, Ye.

Using antibiotics in the meat industry. Mias.ind.SSSR. 27 no.2: 46-49 '56. (MLRA 9:8)

(Antibiotics) (Meat industry)

LAZAREV, Ye. N. (Cand. of Bio. Sci.); AVERVYANOVA, L.L.; GLAGOVSKAYA, R.S.; RYKALEVA, A.M.

"Pharmaceutical Forms of Antibiotics,"

p. 251 Ministry of Health USSR Proceedings of the Second All-Union Conference on Antibiotics, 31 May - 9 June 1957. p. 405, Moscow, Medgiz, 1957.

GABRIEL'YANTS, Mikhail Agaronovich; kand.tekhn.nauk; LAVROVA, L.P., kand.tekhn.nauk, retsenzent; CHOGOVADZE, Sh.K., dotsent, retsenzent; LAZAREV, Ye.N., kand.tekhn.nauk, retsenzent; ZAKS, Ya.A., retsenzent; CHISTYAKOV, F.M., prof., red. [deceased]; KOLCHINSKAYA, N.A., red.; MEDRISH, D.M., tekhn.red.

[Study of meat and meat products] Tovarovedenie miasa i miasnykh tovarov. Moskva, Gos.izd-vo torg.lit-ry, 1960.

(MIRA 13:11)

1. Nauchno-issledovatel'skiy institut myasnoy promyshlennosti (for Lavrova). 2. Leningradskiy institut sovetskoy torgovli imeni F.Engel'sa (for Lazarev). 3. Rosmyasorybtorg Ministerstva torgovli RSFSR (for Zaks).

(Meat) (Eggs)

BELOZEROVA, O.P.; POTRAVNOVA, R.S.; RUBTSOVA, L.K.; EYDEL'STEYN, S.I.; LAZAREVA, Ye.N.

Ditetracycline, a prolonged-action tetracycline derivative. Antibiotiki 8 no.10:926-931 O '63.

(MIRA 17:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.

DANILOV, Matvey Maksimovich; SUKHANOVA, Ye.Yu., kand. tekhn. nauk, retsenzent; AZAROV, V.N., st. prepod., retsenzent; LAZAREV, Ye.N., dots., retsenzent; AYRIYEVA, N.S., red.; VOLKOVA, V.G., tekhn. red.

[Commercial study of food products; meat and meat products] Tovarovedenie prodovol'stvennykh tovarov; miaso i miasnye tovary. Moskva, Izd-vo "Ekonomika," 1964. 230 p. (MIRA 17:3)

1. Nauchno-issledovatel'skiy institut torgovli i obshchestvennogo pitaniya (for Sukhanova). 2. Zaochnyy institut sovetskoy torgovli Ministerstva torgovli RSFSR (for Azarov). 3. Leningradskiy institut sovetskoy torgovli im. Fr.Engel'sa (for Lazarev).

LAZAREV, Ye.N.; MEL'TEVA, N.N.; PAVLOVA, V.F.

Comparison of new varieties of chromatographic paper in the determination of amino acids and their dinitrophenyl derivatives. Lab. delo no.8:453-456 '64. (MIRA 17:12)

1. Kafedra khimii (zaveduyushchiy - prof. A.V.Markovich) i kafedra prodovol'stvennykh tovarov (zaveduyushchiy - prof. A.M.Malkov) Leningradskogo instituta sovetskoy torgovli im. F.Engel'sa.

LAZAREV, Ye.N., kand. iskusstvovedeniya

Perfect organization of production environment.
Mashinostroitel' no.8:2-6 Ag '65.

(MIRA 18:11)

LAZAREV, Ye.V., student

Simple gas generator. Khim. v shkole 17 no.2:60-61 Mr-Ap '62.
(MIRA 15:3)

1. Pedagogicheskiy institut, g.Kuybyshev.
(Gas producers)

KANUNNIKOV, Yu., inzhener (Kaliningrad); LAZAREV, Yu., inzhener (Kaliningrad)

New marine radar equipment. Mor.flot 17 no.8:31 Ag '57. (MIRA 10:10)
(Great Britain--Radar in navigation)

9.2586

AUTHORS: Zakharov, V. and Lazarev, Yu.

TITLE: Electronic Photo-oscillators

PERIODICAL: Radio, 1961, No. 3, pp. 48 - 49

TEXT: The inertia of photo-resistors can be employed to devise a new type of relaxation oscillator. The photo-resistor in such an oscillator plays the part of the capacitance and the feedback path is provided by means of the light flux emitted by the neon lamp. A simple circuit illustrating the principle of such an oscillator is shown in Fig. 1a. The photo-resistor R_{Φ} and the neon lamp are enclosed in a light-proof box. The waveform generated at the anode of the tube is illustrated in Fig. 1б. The principle of operation of the system is as follows. When the key K_1 is open, the neon lamp is not conducting and R_{Φ} is not illuminated. The anode resistance R_a of the triode is chosen in such a way that when the key K_1 is closed the neon lamp is ignited and

Card 1/4

Electronic Photo-oscillators

R_Φ is illuminated. Now, R_Φ changes gradually when illuminated and the negative bias at the grid of the triode is gradually increased. Consequently, the anode voltage increases and the drop across R_a is reduced. When the voltage across R_a becomes sufficiently low, the neon lamp becomes extinguished and R_Φ begins to increase. Consequently, the negative grid bias is gradually reduced; this is followed by a gradual voltage drop at the anode until the point is reached when the voltage across R_a is sufficient to re-ignite the neon lamp. The process is now repeated and the system thus behaves as a relaxation oscillator. The frequency of the output pulses of the system depends on a number of factors and cannot easily be evaluated. In particular, the frequency is greatly dependent on the illumination of the photo-resistor by an external source; this property of the oscillator can be

89647

S/107/61/000/003/002/002
E192/E382

Electronic Photo-oscillators

used for measuring various external light sources. The frequency is also dependent on the slope of the tube employed. In pentodes, the slope can be controlled by varying the voltage applied to the screen grid. Consequently, it is possible to design photo-electronic oscillators in which the screen grid potential of the pentode is controlled by means of a photo-resistor. It is therefore possible to control the oscillation frequency of the system by means of an external light source. Two circuits operating on this principle are described. There are 4 figures.

Card 3/4

LAZAREV Yu. A

AUTHORS: Druzhinin, V. V. and Lazarev, Yu. A. 126-1-26/40

TITLE: On the transverse magnetostriction of iron-silicon alloys. (O poperechnoy magnitostriktsii zhelezokremnistogo splava).

PERIODICAL: Fizika Metallov i Metallovedeniye, 1957, Vol.5, No.1, pp. 164-168 (USSR)

ABSTRACT: The results are described of investigation of the transverse magnetostriction of iron-silicon alloys containing 0.4 to 7% Si. The changes in the magnetostriction were effected by wire strain gauges which were not glued on to the specimen, according to a technique described in an earlier paper (Ref.4). Discs of 45 mm dia. were used as specimens; for eliminating the influence of work hardening the discs, which were made of sheet steel, were etched by a solution of blue vitriol. Sheets containing 1 to 4% Si were taken from normal production batches, whilst sheets containing 0.4, 5.0, 5.5 and 7.0% Si were taken from experimental batches. The study was effected on hot and cold rolled steel. The magnetostriction was measured as a function of the magnetisation of the specimen whereby the maximum magnetic field during magnetisation was 600 Oe.

Card 1/3

On the transverse magnetostriction of iron-silicon alloys.

The magnetisation field of the specimen reached saturation within the limits of 1% and the magnitude of magnetostriction was related to the saturation magnetostriction λ_s. In hot rolled dynamo steels the $\lambda_{\parallel}(B)$ and $\lambda_{\perp}(B)$ were recorded for the case of magnetisation of the specimens in the direction and transverse to the direction of rolling. In some specimens the magnetostriction was also measured under the angles of 22.5, 45 and 67.5° relative to the direction of magnetisation. In the cold rolled specimens the magnetisation was effected under the angles 0, 55 and 90° relative to the direction of rolling, i.e. corresponding to the directions of the main crystallographic axes. The results are graphed in Figs.1-6 and these show that the transverse magnetostriction of iron with 1 to 7% Si contents is in most cases positive in the same way as the longitudinal magnetostriction. The obtained data will be useful in studying the areas of spontaneous magnetisation for iron-silicon sheets.

There are 6 figures and 4 references, all of which are

Card 2/3 Slavic.

126-1-26/40

On the transverse magnetostriction of iron-silicon alloys.

SUBMITTED: November 1, 1956.

ASSOCIATION: Verkh-Isetskiy Metallurgical Works.
(Verkh-Isetskiy Metallurgicheskiy Zavod).

AVAILABLE: Library of Congress.

Card 3/3

AUTHORS: Druzhinin, V.V., Lazarev, Yu.A. 32-12-24/71

TITLE: On the Conditions of the De-Magnetization of Samples of Electrotechnical Steel (Ob usloviyakh razmagnichivaniya obraztsov elektrotekhnicheskoy stali).

PERIODICAL: Zavodskaya Laboratoriya, 1957, Vol. 23, Nr 12, pp. 1451-1454 (USSR)

ABSTRACT: In the introduction it is said that according to the instructions given out by the Soviet State (GOST 802-54) de-magnetization should be carried out with alternating current at 50 cycles frequency and with a gradual decrease of voltage: for the brands of steel "345" and "346" from three AW/cm to 0.002 AW/cm (AW here denotes ampère windings), and for the types of steel "347", "348" and "370" up to 0.1 AW/cm are used; however, as is mentioned here in the further course, the various circumstances of this process have not yet been fully explained, and to do so is the task of this paper. For the explanation of the ratio between the susceptibility (H) of steel and the duration of time of the de-magnetization process it is assumed, in principle, that the maximum susceptibility H_{max} is = 14 Örsted and the minimum susceptibility H_{min} = 0.003 Örsted; the actual time taken by the process of de-magnetization amounts to

Card 1/2

30, 60 and 120 minutes (according to a table). Numerous examples relating to tests carried out with the brands of steel mentioned are given in this paper; results are shown in form of 2 diagrams. Conclusions: 1.) During the process of de-magnetization every form of motion must be avoided (even touching the sample with a pencil may disturb the process of induction). This disturbance may amount to from 10 to 40%. 2.) Before measuring the field must be switched off before it is switched on again; measuring should be carried out as quickly as possible, because switching on the field produces a weakening effect at H. It is suggested that measuring should be duly carried out within one minute. There are 5 figures and 2 tables.

ASSOCIATION: Central Laboratory of the Verkh-Isetsk Metallurgical Plant (Tsentral'naya laboratoriya Verkh-Isetskogo metallurgicheskogo zavoda).

AVAILABLE: Library of Congress

1. Degaussing-Methods

SOV/68-59-6-8/25

AUTHORS: Rakov, V.V. and Lazarev, Yu.A.

TITLE: A Rapid Method of Rebuilding the Heating Walls of Coke Ovens (Perekladka obogrevatel'nykh prostenkov koksovykh pechey skorostnym metodom)

PERIODICAL: Koks i Khimiya, 1959, Nr 6, pp 31-35 (USSR)

ABSTRACT: A Method of rapid rebuilding of small groups of oven walls was developed and successfully tested in two cases on the Kuznetsk Works. The principles of the method are as follows: 1) demolishing of old walls is done without their preliminary cooling, whereupon some decrease in the temperature of the buffer walls is considered as unavoidable; 2) the temperature of the buffer walls, facing walls under demolition is maintained high by a careful thermal insulation; 3) the regenerators of the oven under repair and those of the buffer ovens are maintained hot by continuous heating; 4) heating up of the new walls is started immediately after building and is finished in 6 - 7 days after the

Card 1/2

SOV/68-59-6-8/25

A Rapid Method of Rebuilding the Heating Walls of Coke Ovens

roof of the oven is covered. The procedure adopted is described in some detail.
There are 4 figures and 1 table.

ASSOCIATION: Kuznetskiy Metallurgicheskiy Kombinat (Kuznetsk Metallurgical Combine)

Card 2/2

68885
S/051/60/008/02/011/036
E201/E391

5.4130

AUTHORS: Bazhulin, P.A. and Lazarev, Yu.A.

TITLE: Investigation of the Raman Spectra in Gases at Low Pressures Using a Photoelectric Method

PERIODICAL: Optika i spektroskopiya, 1960, Vol 8, Nr 2, pp 206 - 213 (USSR)

ABSTRACT: The authors recorded and measured intensities, widths and contours of the rotational and vibrational Raman lines of vapours and gases at pressures of 1-10 atm and temperatures of 30-250 °C. The apparatus used consisted of: (a) a DFS-4 spectrometer with a plane reflection grating with 1 200 lines /mm, a linear dispersion of 6.4 Å/mm and a relative aperture of 1:10; (b) a multiple-reflection cell (with dielectric or aluminized mirrors reflecting 90-95% of light at 4 000 - 5 000 Å) of 600 mm length and 40 mm diameter and two focusing condenser lenses; (c) two low-pressure cooled mercury lamps of 600 mm length; (d) a screening jacket internally coated with MgO. A battery-fed photomultiplier FEU-17 was used as a receiver. The authors investigated pure

Card1/4

68885
S/051/60/008/02/011/036
E201/E391

Investigation of the Raman Spectra in Gases at Low Pressures Using a Photoelectric Method

H_2, O_2, N_2, CO_2 and CH_4 gases and their mixtures with argon and helium. A typical spectrogram (representing the rotational Raman spectrum of O_2 at 3 atm) is shown in Figure 1. Isolated lines were treated as described earlier (Refs 8, 13, 14) using Voigt's functions. For overlapping lines the authors used special methods, partly described in earlier work (Refs 14, 15). From the slope of the straight lines representing dependences of the true widths of the rotational lines on pressure, the effective optical collision cross-sections could be obtained (Figure 2 and Table 1). Within the limits of the experimental error, the optical collision cross-section and the line width were found to be independent of the rotational quantum number j . The optical collision cross-sections deduced from broadening of the rotational Raman lines at $T = 300\ ^{\circ}K$ were 4.2 Å for O_2, 4.1 Å for N_2, 9 Å for CO_2 and < 1 Å for H_2 (Table 1).

Card2/4

68885
S/051/60/008/02/011/036
E201/E391

Investigation of the Raman Spectra in Gases at Low Pressures Using a Photoelectric Method

The optical cross-section for oxygen, obtained for the authors at 1-10 atm, agreed quite well with the value of 4.5 Å found by Mikhaylov (Ref 10) from the rotational Raman spectra at pressures of 10-100 atm, and with the value of 4.35 Å deduced by Anderson at al (Ref 19) from the microwave rotational spectrum of O_2 (magnetic absorption) at pressures of 0.1 - 12 mm Hg. Table 2 lists values of the collision cross-sections calculated from the gas-kinetic theory. The greatest differences between the optical and gas-kinetic values of the cross-sections occurred in the case of H_2 (< 1 and 2.7 Å, respectively) and in the case of CO_2 (9 and 4.5 Å, respectively). Analysis of the vibrational spectra (Tables 3 and 4, Figures 3-5) led to the following results: a) all broad lines are asymmetrical; b) the contours and widths of strongly polarized lines

Card3/4

68885
S/051/60/008/02/011/036
E201/E391

Investigation of the Raman Spectra in Gases at Low Pressures Using a Photoelectric Method

(ν_1 and $2\nu_2$ of H_2, O_2, N_2, CO_2, ν_1 of CH_4) were independent of pressure between 1 and 10 atm.

Acknowledgment is made to I.I. Sobel'man for his advice.

There are 5 figures, 4 tables and 34 references, 18 of which are Soviet, 11 English, 1 German and 4 Translations.

SUBMITTED: June 22, 1959

4

Card 4/4

BAZHULIN, P.A.; LAZAREV, Yu.A.; DESYATOVA, N.V.

Intensity and degree of polarization of the lines of the vibrational Raman spectrum of gaseous butadiene. Opt.i spektr. 13 no.1:75-78 Jl '62. (MIRA 15:7)

(Butadiene--Spectra)

43020

S/194/62/000/010/043/084
A051/A126

9.4000

AUTHORS: Zakharov, V.K., Lazarev, Yu.A.

TITLE: A photoelectronic generator with photoconductive cell and neon lamp

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 10, 1962, 4, abstract 10-5-8ts (Tr. Kazakhsk. n.-i. in-ta mineral'n. syr'ya, 1960, no. 3, 352 - 353)

TEXT: In the relaxation generator described, the capacitor function is performed by an ФС-К1 (FS-K1) photoconductive cell. Both the photoconductive cell and the neon lamp are contained in a light-tight shield and are arranged one over the other such that the luminous flux of the neon lamp hits more fully the working part of the cell. An aperture for the exposure to light is provided in the shield. A circuit diagram of the generator is given and its operation is described. The period of generation depends on the voltage fed to the generator, and on the degree to which the photoconductive cell is illuminated by the external light source. The pulse shape on the neon-lamp electrodes is almost rectangular with a slight slope toward the trailing-edge side. The generation frequen-

Card 1/2

A photoelectronic generator with photoconductive S/194/62/000/010/043/084
A061/A126

cy is given as a function of the voltage fed and of illumination by the external light source. A photogenerator with these functions can be employed in luminous-flux measurements, particularly when developing apparatus for spectrum analysis. There are 3 figures and 3 references.

[Abstracter's note: Complete translation]

Card 2/2

S/051/62/013/005/006/017
E202/E192

AUTHOR: Lazarev, Yu.A.

TITLE: Broadening of the lines in rotational and rotational-vibrational Raman spectra in the gaseous phase

PERIODICAL: Optika i spektroskopiya, v.13, no.5, 1962, 655-662

TEXT: From the broadening of purely rotational spectra optical diameters of pure homogeneous gases viz. CO_2, C_2H_2 and CO were determined. Optical diameters of the mixtures of any one of the above gases with any one of the following were also determined: He, Ar, CH_4. The experimental techniques used were identical with those previously described (P.A. Bazhulin, Yu.A. Lazarev, Opt. i spektr., 8, 1960, 206). The pressure varied within 1 - 10 atm (except for C_2H_2, which did not exceed 2 atm), and the temperature was kept at approximately 30 °C. A striking relation was discovered between the line broadening and the rotational quantum number j, in the spectrum of acetylene. Particularly accurate measurements of line broadening of the CO_2 rotational spectrum and rotation-vibrational spectrum of O_2 were claimed. It was found generally that the real line profile was dispersed and the width

Card 1/2

for the 1 - 10 atm pressure range was related linearly to the density. The $\Delta\nu/\Delta p$ (cm^{-1}/atm) depended, as a rule, slightly on j, at least for frequency intervals corresponding to the most populated levels. The broadening was considerably affected by the nature of the gaseous admixture. Experimental values of the optical diameters quoted were derived from the $\Delta\nu/\Delta p$ values according to the Lorentz relation. These values were compared with the theoretically calculated diameters for the interacting pairs of molecules, quoting the dispersive, quadrupole and total values of the diameters. The work is concluded with a brief discussion and summary of expressions for the dipole-dipole, dipole-induced-dipole, induced dipole-quadrupole, dipole-quadrupole, quadrupole-quadrupole and dispersive interactions.
There are 1 figure and 3 tables.

SUBMITTED: September 23, 1961

Card 2/2

LAZAREV, Yu.A.

Mean tensor values of the polarization derivative and the chemical bonds in hydrocarbons. Opt. i spektr. 17 no.3:364-368 S '64.
(MIRA 17:10)

LAZAREV, Yu.A.

Mechanism underlying the broadening of Raman lines in rotational spectra of nondipolar molecules. Opt. i spektr. 17 no.4:630-632 O '64. (MIRA 17:12)

L 34875-65 EWT(l)/EEC(t) Peb IJP(c)

ACCESSION NR: AP5005045 S/0051/65/018/002/0311/0317

AUTHOR: Lezarev, Yu. A. 17 B

TITLE: Allowance for apparatus distortions of true values of impact broadening of Raman lines in rotational and rotational-vibrational spectra 21

SOURCE: Optika i spektroskopiya, v. 18, no. 2, 1965, 311-317

TOPIC TAGS: line broadening, Raman spectrum, rotational spectrum, vibrational spectrum, apparatus error, spectral analysis

ABSTRACT: The author describes some of the special methods employed to determine the true values of impact broadening of Raman lines in the investigation of optical cross sections of molecules. The investigations themselves are described elsewhere (Opt. i spektr., v. 8, 206, 1960 and v. 13, 655, 1962). The described methods of illuminating the apparatus function is based on the fact that the spectral line of the exciting source (water-cooled mercury lamp) can be approximated by a Gaussian distribution, so that the observed contour line can be described by a Voigt function, which is the convolution of the dispersion and

Card 1/2

L 34875-65

ACCESSION NR: AP5005045

Gaussian functions. The accuracy with which the true parameters of isolated lines can be determined in this manner is discussed. It is shown further that in spectra of gases, where the rotational structure is complex, there is no developed procedure for the interpretation of such spectra, except for the special case of equidistant lines of equal intensity and equal dispersion shape, where approximations with Airy functions can be used. Cases when satisfactory results can be obtained for strongly overlapping lines and some spectral parameters are known are briefly discussed. Orig. art. has: 9 figures and 3 formulas.

ASSOCIATION: None

SUBMITTED: 09Jan64 ENCL: 00 SUB CODE: OP

NR REF SOV: 009 OTHER: 001

Card 2/2

LAZAREV, Yu.A.

Nature of line broadening in the rotational-vibrational spectrum of methane. Opt. i spektr. 17 no.5:800-801 N '64.
(MIRA 17:12)

LAZAREV, Yu.G.

SHVARTSMAN, Samuil Mironovich; LAZAREV, Yu.G., redaktor; SOBOLEVA, Ye.M., tekhnicheskiy redaktor

[Calculation of the strength of boiler apparatus elements] Raschet prochnosti elementov kotel'nykh agregatov. Moskva, Gos. energ. izd-vo, 1957. 268 p. (MLRA 10:7)
(Boilers)

LAZAREV, Yu. G.

KISEL'GOF, M. L., and KISELEV, P. I. (Cand.Tech.Sci.) LAZAREV, Yu. G., DIMNOV, I. M., MURAVKIN, B. N. (Engr.) and MAKSIMOV, V. M. (Cand.Tech.Sci.)

"Questions of Fuel Preparation."

A Scientific-Technical Conference on Auxiliary Equipment for Power Station Boiler-Houses. Moscow, 17 - 20 Dec 1957.

Teploenergetika, 1958, . No. 4, pp. 90-91 (USSR)

LAZAREV, Yu.G., inzh.

Boiler unit with cyclone precombustion chambers.
Energomashinostroenie 7 no.4:4 Ap '61. (MIRA 14:7)
(Boilers)

BURGVITS, G.A., inzh.; DIANOV, I.M., inzh.; KUSHNIKOV, B.D., inzh.; LAZAREV, Yu.G., inzh.; KENDYS', P.N., kand.tekhn.nauk

Use of high-speed shaft mills for coal crushing. Energomashinostroenie 7 no.10:19-22 O '61. (MIRA 14:10)
(Coal, Pulverized) (Boilers--Firing)

NIKITIN, Yu.K.; STRAKHOV, V.M.; LAZAREV, Yu.O.

Uniformity of the heating of the coal charge in large capacity ovens. Koks i khim. no.7:23-25 '65. (MIRA 18:8)

1. Kuznetskiy filial Vostochnogo uglekhimicheskogo instituta (for Nikitin, Strakhov). 2. Kuznetskiy metallurgicheskiy kombinat (for Lazarev).

SHCHERBAKOV, A. P., LAZAREVA, T. I.

Trees; Growth (Plants)

Periodicity of growth and the accumulation of dry substance in two-year-old tree seedlings. Biul. MOIP. Otd. biol. 57 no. 1, 1952

SO: Monthly List of Russian Accessions, Library of Congress, _____ 1953, Uncl.

OZOL, A.M.; LAZAREVA, A.A.

The state of colls od tissues of sprouts during winter rest and the winter-resistance of nuts. Doklady Akad. Nauk S.S.S.R. 89, 1111-14 '53. (MLRA 6:4)
(CA 47 no.19:10067 '53)

LAZAREVA, A.

USSR.

Directed rearrangement of photosynthetic and carbon dioxide metabolic processes in acclimatization of walnut trees. A. Ozols and A. Lazareva. *Latvijas PSR Zinātņu Akad. Vestis* 1954, No. 8(Whole No. 85), 27–38 (in Russian; Latvian summary, 37–8).—Walnuts from Central Asia and East Caucasus (I) acclimatized in Moscow region, as well as in Latvia, much better than those from the subtropical Black Sea regions and North Caucasus (II). Trees from I displayed more intense CO_2 metabolism, and higher activity of peroxidase and catalase than those from II. The metabolism intensified further after passing through generative cycle under new climatic conditions. A. D.

KOROLEV, I.A.; LAZAREVA, A.A.

Hydrochemical characteristics of ground waters in the aera of the Azov irrigation system. Gidrokhim. mat. 31:171-182 '61. (MIRA 14:3)

1. Gidrokhimicheskiy institut Akademii nauk SSSR, g. Novocherkassk.
(Azov Canal region--Water, Underground)

LAZAREVA, A.G.

Potatoes

Using intravarietal cross-breeding in selection of potatoes. Sel. i sem., 19, No. 9, 1952.

Monthly List of Russian Accessions, Library of Congress, December 1952. UNCLASSIFIED.

LAZAREVA, A. G.

"The Effect of Vegetative Similarity on Sexual Heredity in the Interspecies Hybridization of Potatoes." Cand Biol Sci, All Union Sci Res Inst of Plant Protection, All Union Order of Lenin Acad Agricultural Sci imeni V. I. Lenin, Leningrad, 1954. (KL, No 7, Feb 55)

SO: Sum. No. 631, 26 Aug 55-Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (14).

LAZAREVA, A. G.

M-7

USSR / Cultivated Plants. Fruits, Berries.

Abs Jour : Ref Zhur - Biologiya, No 13, 1958, No. 59719

Author : Nesterov, Ya. S.; Dragozhinskaya, V. M.; Mel'nikova, K. D.; Lazareva, A. G.; Gusev, P. P.

Inst : All-Union Institute of Plant Cultivation

Title : Best Varieties of Fruit-Berries and Nut Crops for Production Development

Orig Pub : Michurinsk. sb., Krasnodar, "Sov. Kuban'", 1957, 48-61

Abstract : The world assortment of fruit-berries and nut crops was studied in the Maikop experimental station of the All-Union Institute of Plant Cultivation. Over 4500 varieties are grown in their collections: about 1300 apple tree varieties, 550 pears, 1500 plums, Prunus divaricata and other varieties. As a result of the study of the world collection of apple trees, 53 varieties were regionalized, 168 varieties were singled

Card 1/3

USSR / Cultivated Plants. Fruits, Berries.

Abs Jour : Ref Zhur - Biologiya, No 13, 1958, No. 58719

out for variety testing. From the pear trees 25 of the best varieties of various periods of ripening were selected. 42 varieties of plums and prunes were singled out. 18 of them were regionalized in the kray and 19 were accepted for testing in the southern zone of RSFSR. 46 varieties, 12 of which entered into the standard assortment of the kray, were selected and submitted for variety testing from 500 varieties and specie-samples of berry crops. There are 125 varieties and species of nut crops in the station's collections. 12 varieties of "funduk" and 6 elite forms of walnut were selected and recommended for testing. From the hybrid fund of the station were chosen 40 elite seedlings, from which 2 strawberry varieties, 13 elite seedlings of apple tree, and 20 elite seedlings of

Card 2/3

Abs Jour : Ref Zhur - Biologiya, No 13, 1958, No. 58719

prunes were selected. Brief descriptions of the best varieties and of the hybrids are given. -- A. M. Shevchenko

LAZAREVA, A. G.

USSR / Cultivated Plants. Fruit Trees. Small Fruit Trees. M-7

Abs Jour: Ref Zhur-Biol., 1958, No 16, 73154.

Author : Lazareva, A.
Inst : Not given.
Title : New Strawberry Varieties in Krasnodarskiy Kray.

Orig Pub: Sad i ogorod, 1957, No 2, 41.

Abstract: Brief characteristics of 'Rannyaya mosvir" and "Chernobrivka" varieties which are widespread in the Kray and were brought out by the Maykopskaya Experimental Station in 1936.

Card 1/1

LAZAREVA, A.G., kand.biolog.nauk

Parent material and methods for breeding new strawberry varieties in southern U.S.S.R. Agrobiologiia no. 1:134-135 Ja-F '61. (MIRA 14:2)

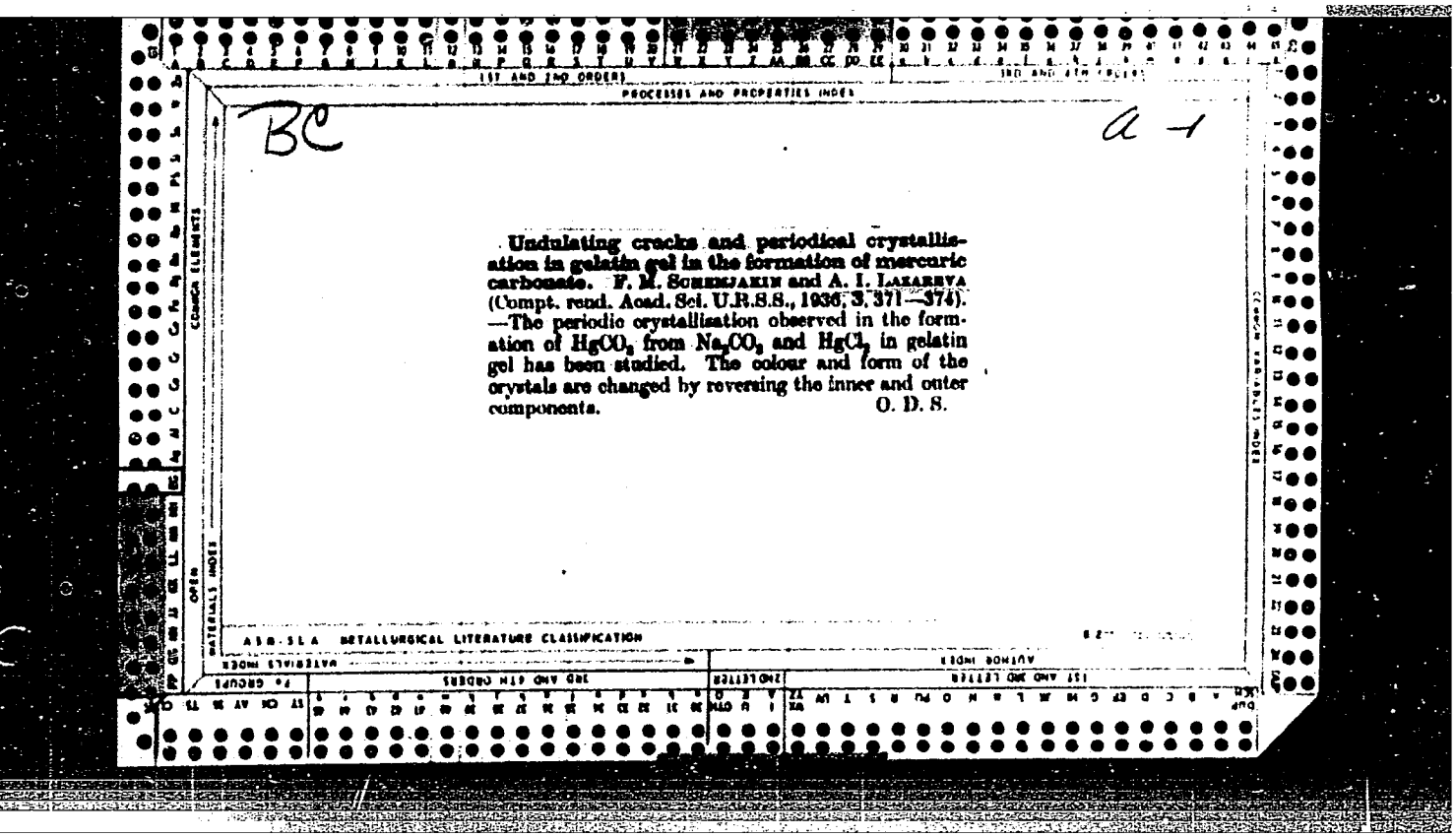
1. Maykopskaya opytnaya stantsiya Vsesoyuznogo instituta rasteniyevodstva.
(Strawberry breeding)

LAZAREVA, A.G., kand.biolog.nauk

Cultivation practices in berry protection. Zashch. rast. ot vred. i bol. 8 no.5:34-35 My '63. (MIRA 16:9)

1. Maykopskaya opytnaya stantsiya Vsesoyuznogo instituta rasteniyevodstva.

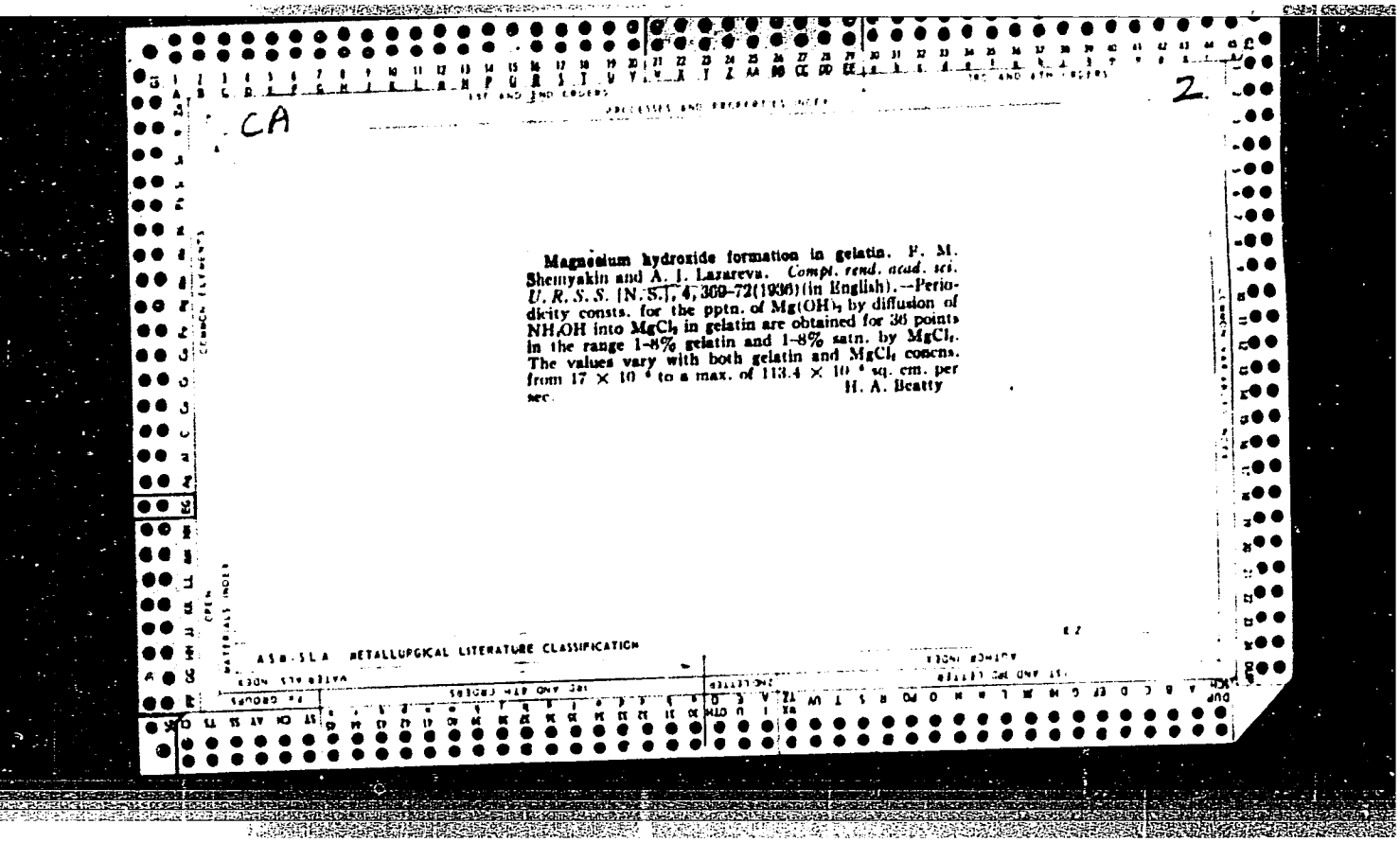
(Caucasus, Northern--Berries--Diseases and pests)



BC

a-1

Undulating cracks and periodical crystallisation in gelatin gel in the formation of mercuric carbonate. F. M. Schemjakin and A. I. Lazarева (Compt. rend. Acad. Sci. U.R.S.S., 1936, 3, 371—374). —The periodic crystallisation observed in the formation of $HgCO_3$ from Na_2CO_3 and $HgCl_2$ in gelatin gel has been studied. The colour and form of the crystals are changed by reversing the inner and outer components. O. D. S.



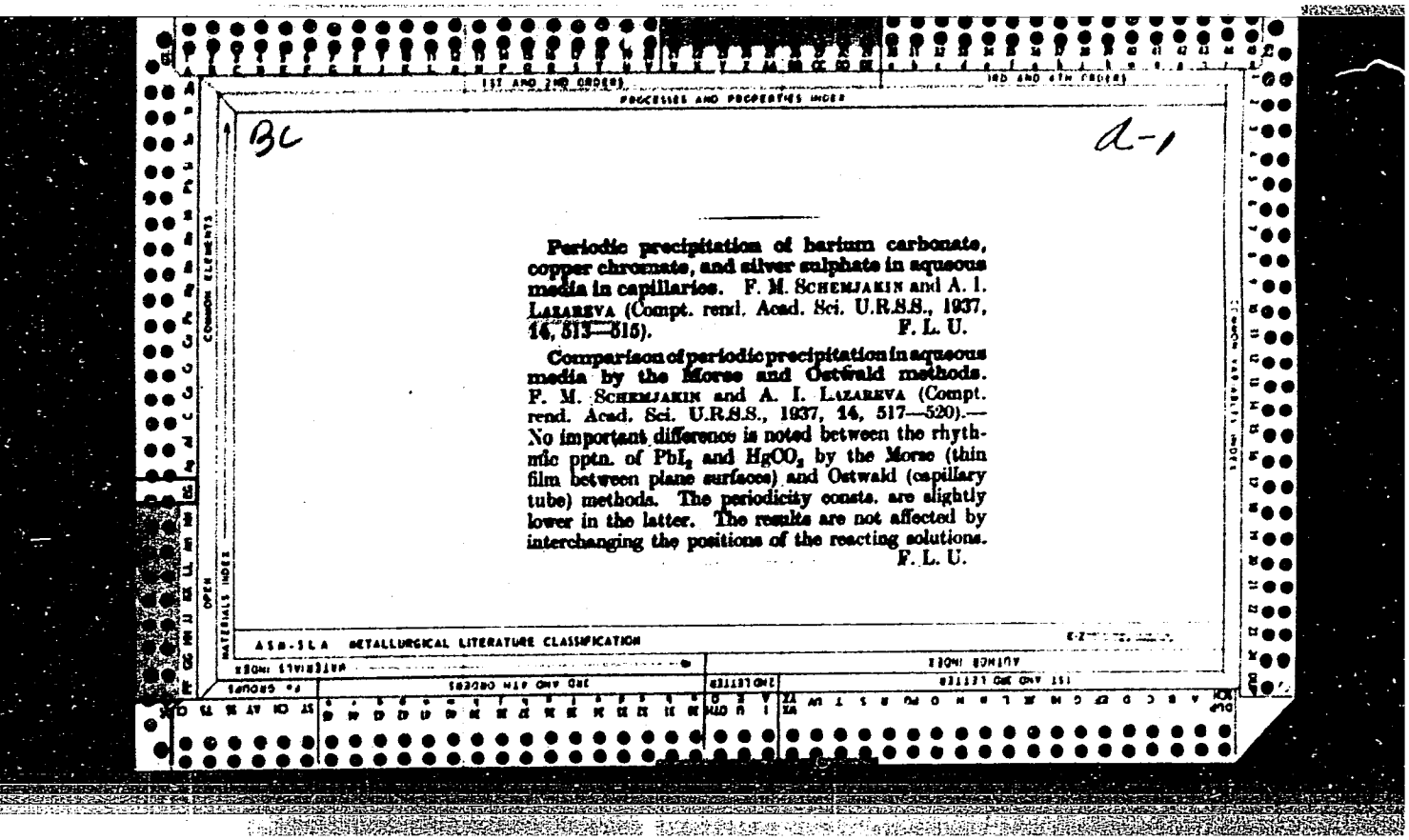
CA

2.

Magnesium hydroxide formation in gelatin. P. M. Shemyakin and A. I. Lazareva. *Compt. rend. acad. sci. U. R. S. S.* [N. S.], 4, 369–72(1936)(in English).—Periodicity consts. for the pptn. of $Mg(OH)_2$ by diffusion of NH_4OH into $MgCl_2$ in gelatin are obtained for 36 points in the range 1–8% gelatin and 1–8% satn. by $MgCl_2$. The values vary with both gelatin and $MgCl_2$ concns. from 17×10^{-4} to a max. of 113.4×10^{-4} sq. cm. per sec.

H. A. Beatty

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

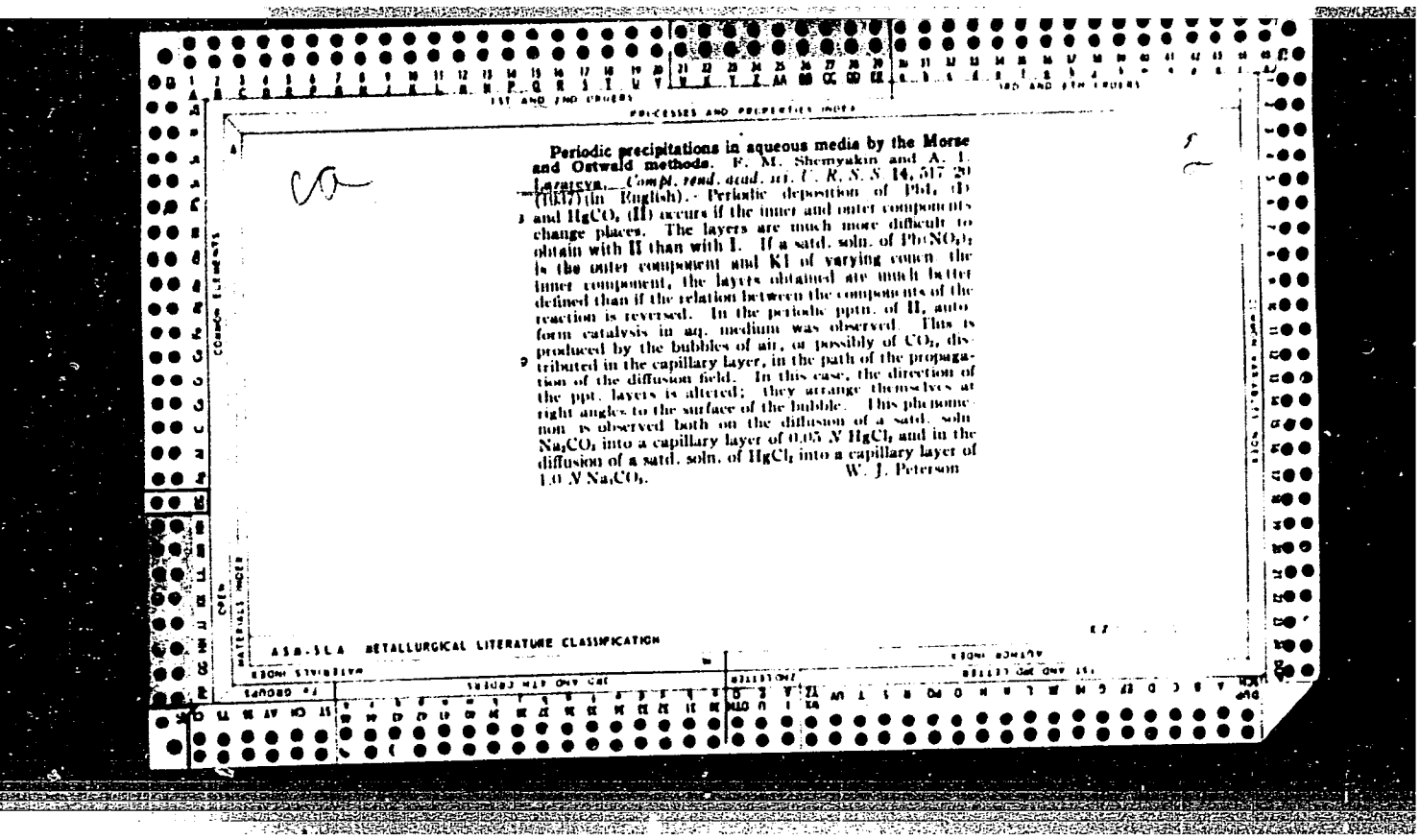


BC

A-1

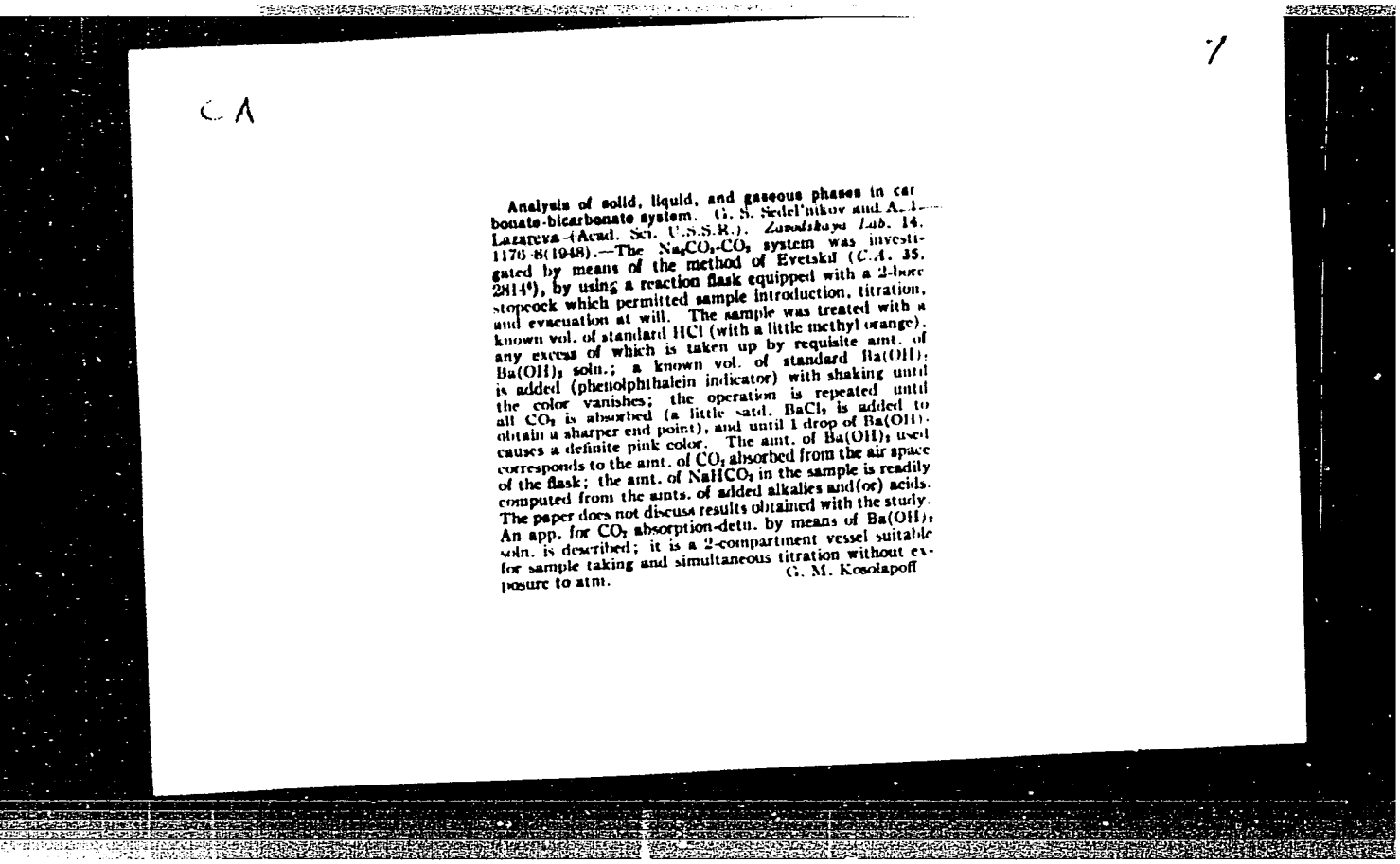
Periodic precipitation of barium carbonate, copper chromate, and silver sulphate in aqueous media in capillaries. F. M. SCHEMJAKIN and A. I. LAZAREVA (Compt. rend. Acad. Sci. U.R.S.S., 1937, 14, 513—515). F. L. U.

Comparison of periodic precipitation in aqueous media by the Morse and Ostwald methods. F. M. SCHEMJAKIN and A. I. LAZAREVA (Compt. rend. Acad. Sci. U.R.S.S., 1937, 14, 517—520).— No important difference is noted between the rhythmic pptn. of PbI_2 and $HgCO_3$ by the Morse (thin film between plane surfaces) and Ostwald (capillary tube) methods. The periodicity consts. are slightly lower in the latter. The results are not affected by interchanging the positions of the reacting solutions. F. L. U.



Periodic precipitations in aqueous media by the Morse and Ostwald methods. F. M. Shemyakin and A. I. Lazarcva. *Compt. rend. acad. sci. U. R. S. S.* **14**, 517-20 (1937) (in English).—Periodic deposition of PbI_2 (I) and $HgCO_3$ (II) occurs if the inner and outer components change places. The layers are much more difficult to obtain with II than with I. If a satd. soln. of $Pb(NO_3)_2$ is the outer component and KI of varying concn. the inner component, the layers obtained are much better defined than if the relation between the components of the reaction is reversed. In the periodic pptn. of II, auto form catalysis in aq. medium was observed. This is produced by the bubbles of air, or possibly of CO_2, distributed in the capillary layer, in the path of the propagation of the diffusion field. In this case, the direction of the ppt. layers is altered; they arrange themselves at right angles to the surface of the bubble. This phenomenon is observed both on the diffusion of a satd. soln. Na_2CO_3 into a capillary layer of 0.05 *N* $HgCl_2$ and in the diffusion of a satd. soln. of $HgCl_2$ into a capillary layer of 1.0 *N* Na_2CO_3.

W. J. Peterson



CA

7

Analysis of solid, liquid, and gaseous phases in carbonate-bicarbonate system. G. S. Sedel'nikov and A. I. Lazareva (Acad. Sci. U.S.S.R.). *Zavodskaya Lab.* 14, 1176-8(1948).—The Na_2CO_3-CO_2 system was investigated by means of the method of Evetskif (*C.A.* 35, 2814[6]), by using a reaction flask equipped with a 2-bore stopcock which permitted sample introduction, titration, and evacuation at will. The sample was treated with a known vol. of standard HCl (with a little methyl orange), any excess of which is taken up by requisite amt. of $Ba(OH)_2$ soln.; a known vol. of standard $Ba(OH)_2$ is added (phenolphthalein indicator) with shaking until the color vanishes; the operation is repeated until all CO_2 is absorbed (a little satd. $BaCl_2$ is added to obtain a sharper end point), and until 1 drop of $Ba(OH)_2$ causes a definite pink color. The amt. of $Ba(OH)_2$ used corresponds to the amt. of CO_2 absorbed from the air space of the flask; the amt. of $NaHCO_3$ in the sample is readily computed from the amts. of added alkalies and(or) acids. The paper does not discuss results obtained with the study. An app. for CO_2 absorption-detn. by means of $Ba(OH)_2$ soln. is described; it is a 2-compartment vessel suitable for sample taking and simultaneous titration without exposure to atm.

G. M. Kosolapoff

LAZAREVA, A. I.

USSR/Chemistry - Salts
Brines

Aug 49

"Preparing Complex Salts Crystallized From the Brines of Kara-Bogaz-Gol," I. G. Druzhinin, V. I. Nikolayev, I. S. Chelyadina, A. I. Lazareva, Inst of Gen and Inorg Chem, Acad Sci USSR, 6 pp

"Zhur Prik Khim" Vol XXII, No 8

Kara-Bogaz-Gol brines give variable yields of salts, depending on the temperature. At 0° C, there is a relatively high yield of magnesium sulfate; above 25° C, astrakhanite is obtained; and below 0° C, mirabilate is the chief product. Saturated sodium sulfate solutions yield as much as 268 kg of mirabilate per 1 cubic meter of solution. Submitted 5 Jan 49.

P 67/49T72

LAZAREVA, A. I.

Dissertation: "The Solubility and Partial Pressure of Carbon Dioxide in the System Sodium Carbonate - Sodium Bicarbonate - Water." Cand Chem Sci, Inst of General and Inorganic Chemistry imeni N. S. Kurnakov, Acad Sci USSR, 23 Jun.54. (Vechernyaya Moskva, Moscow, 14 Jun 54)

SO: SUM 318, 23 Dec 1954

ITKINA, L.S.; LAZAREVA, A.I.

Water - salt systems containing carbonates, bicarbonates, chlorides, sulfates, and alkali metal hydroxides. Itogi nauki: Khim.nauki 4:92-108 '59. (MIRA 13:4)
(Salts) (Systems(Chemistry))

5 (1)

AUTHORS: Sedel'nikov, G. S., Lazareva, A. I. SOV/64-59-5-9/28

TITLE: Preparation of Soda, Potash, and Potassium Sulphate From Solutions of Alumina Production

PERIODICAL: Khimicheskaya promyshlennost', 1959, Nr 5, pp 401 - 404 (USSR)

ABSTRACT: According to data by the Volkhovskiy alyuminiyevyy zavod (Volkhov Aluminum Plant), larger quantities of spent lyes (specific weight 1.20) of the following composition are obtained in the production of alumina from nephelines: 95 g/l Na_2O, 43 g/l K_2O, 85 g/l CO_2, 5 g/l SO_3. For years these spent lyes have been processed by a three-stage evaporation in this plant, whereby, however, the potash, soda, and potassium sulphate obtained are rendered impure. In order to obtain a complete separation of the salts, the phase diagram of the systems $K_2CO_3 + 2\ NaHCO_3 + H_2O$; $K_2CO_3 + Na_2SO_4 + H_2O$; $Na_2SO_4 + 2\ KHCO_3 + H_2O$; and $2\ K^+, 2\ Na^+ \parallel CO_3^{2-}, 2\ HCO_3^-$, $SO_4^{2-} + H_2O$ (I), respectively, must be thoroughly investigated. The solid phases (containing the sulphates) are more readily

Card 1/3

soluble in the bicarbonate solution, less soluble in the partly carbonized solution (in the presence of $Na_3H(CO_3)_2 \cdot 2H_2O$), and considerably less soluble in solutions without bicarbonate ions (i.e. when the monohydrate is separated). Proceeding from this assumption, a scheme for a fractional crystallization of the salts was suggested basing on the difference in solubility of salts in the five- component system (I). The course of crystallization and the separation of salts are represented by solubility- and crystallization diagrams in (I) (Fig 1); the composition of individual solutions in the various stages of salt separation is also given (Table 1). The devised separation scheme was investigated on an experimental plant of the Vsesoyuznyy institut sodovoy promyshlennosti (All-Union Institute of Soda Industry) in the Slavyanskiy sodovoy zavod (Slavyansk Soda Plant) (Fig 2 : scheme of the plant; Table 2 : composition of the salts obtained). A description of the plant and the working process is given. Bubble columns of the kind of the bicarbonate column of the Donetskiy sodovoy zavod (Donetsk Soda Plant) are used; it is pointed out that according

to the experience collected by the zavod khimicheskikh reaktivov v Stalino (Stalino Plant for Chemical Reagents) stainless steel 1Kh18N19T may be used as construction material for the plant. In accordance with the method described the salts may be completely separated. The potash obtained need not be subjected to a subsequent purification. No caustic potash is needed for neutralization. A standardized plant may be used which can be installed in alumina works already in operation or presently being planned. There are 2 figures, 2 tables, and 9 Soviet references.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii imeni N. S. Kurnakova AN SSSR (Institute of General and Inorganic Chemistry imeni N. S. Kurnakov, AS USSR)

SEDEL'NIKOV, G.S.; LAZAREVA, A.I.

Bromine in Kara-Bogaz-Gol brines. Zhur.neorg.khim. 9 no.1:196-202 Ja '64. (MIRA 17:2)

LAZAREVA, A.

Moving-picture Projectors

K22 motion picture projection lamp. Kinomekhanik no. 12, 1952

9. Monthly List of Russian Accessions, Library of Congress, May 1953, Uncl.

SOV/112-58-2-3465

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1958, Nr 2, p 255 (USSR)

AUTHOR: Golostenov, G. A., Derbisher, T. V., and Lazareva, A. N.

TITLE: A 15,000-Lumen Movie Projector Arc Lamp
(Dugovaya lampa kinoproyektora na 15 000 lm)

PERIODICAL: Tr. Vses. n.-i. kinofotoin-ta, 1957, Nr 1 (P), pp 17-23

ABSTRACT: A new powerful movie projector has been developed with a 15,000-lm luminous flux for use in wide-screen and conventional movie theaters and also for outdoor projection. To secure the required luminous flux, a new illuminating system has been designed that comprises one elliptic 450-mm diameter reflector with a relative opening of 1:1.8. Special rotating positive 11-mm, 120-amp carbons have been developed for the new arc lamp. A cooling system, and the material for the current-carrying contacts of the positive carbons that considerably improve its operation, have been selected experimentally. Local fan ventilation has been developed to cool the housing and reflector; to control the arc lamp, an electric photoresistor circuit has been developed.

N.V.Ch.

Card 1/1